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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,044	10/20/2000	Yoshihiro Okada	49941(868)	8505

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David G. Conlin, ESQ.
Dike, Bronstein, Roberts & Cushman, LLP
130 Water Street
Boston, MA 02109

EXAMINER

PIZIALI, JEFFREY J

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/693,044

Applicant(s)

OKADA ET AL.

Examiner

Jeff Piziali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 3,6,9 and 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,8,10-13 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Invention Group I, Species I (claims 1, 2, 4, 5, 7, 8, 10-13, and 19) in Paper No. 4 (filed September 26, 2002) is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 3, 6, 9, and 14-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 4 (filed September 26, 2002).
3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

4. Figures 10A and 10B should each be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or

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corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4, 7, 10, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeda et al. (US 5,398,043).

Regarding claim 1, Takeda discloses an active-matrix liquid crystal display apparatus comprising: an active-matrix substrate including a plurality of scanning electrode lines [Fig. 1, 1], a plurality of data electrode lines [Fig. 1, 2], pixel electrodes [Fig. 1, A] and switching elements [Fig. 1, 3], the pixel electrodes being respectively connected to intersections of the plurality of scanning electrode lines and the plurality of data electrode lines via the switching elements; a counter electrode substrate including a counter electrode formed thereon, the counter electrode being opposed to the pixel electrodes; a liquid crystal [Fig. 1, 7] sandwiched between the active matrix substrate and the counter electrode substrate; the active-matrix substrate further including supplementary capacitance lines which are formed in parallel to the scanning electrode lines, and supplementary capacitances [Fig. 1, 8] for holding display data which are connected between the pixel electrodes and the supplementary capacitance lines, the apparatus further comprising: a supplementary capacitance drive circuit [Fig. 1, Ve] for driving the supplementary

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capacitance lines so that a predetermined potential difference from a voltage applied to the counter electrode is always maintained when any of the pixel electrodes and supplementary capacitance lines leaks (see Column 6, Line 21 - Column 8, Line 50).

Regarding claim 4, Takeda discloses the supplementary capacitance lines [Fig. 4, 17] are separated every scanning electrode line [Fig. 4, 15] to which the switching element for switching driving a pixel potential difference connected through the supplementary capacitance is connected at the intersection, and the supplementary capacitance drive circuit [Fig. 4, 13] drives the supplementary capacitance lines with a polarity being reversed every time an on-signal is input to the scanning electrode line driven at a stage preceding the scanning electrode line (see Fig. 5c; Column 8, Line 55 - Column 9, Line 40).

Regarding claim 7, Takeda discloses the switching element and the pixel electrode are disconnected from each other at a pixel where the leakage between the pixel electrode and the supplementary capacitance line occurs (see Figs. 2 & 5; Column 9, Line 1 - Column 10, Line 12).

Regarding claim 10, this claim is rejected by the reasoning applied in the above rejection of claim 7.

Regarding claim 19, this claim is rejected by the reasoning applied in the above rejection of claim 1.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 5, 8, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. (US 5,398,043).

Regarding claim 2, Takeda discloses a display mode of the LCD apparatus is normally black (see Fig. 3; Column 9, Lines 41-58) and the supplementary capacitance drive circuit drives the supplementary capacitance so that a potential difference not less than a threshold voltage of the liquid crystal is maintained with respect to the counter electrode (see Column 8, Lines 12-34). Takeda does not expressly disclose a display mode of the LCD apparatus being normally white. However, normally-white LCDs were well known and commonly understood at the time of invention. Therefore, it would have been obvious to one skilled in the art at the time of invention to use a normally-white type liquid crystal apparatus as Takeda's LCD, so as to provide energy savings for a image display device that will oftentimes reside in a mainly white state.

Regarding claim 5, this claim is rejected by the reasoning applied in the above rejection of claim 4.

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Regarding claim 8, this claim is rejected by the reasoning applied in the above rejection of claim 7.

Regarding claim 11, this claim is rejected by the reasoning applied in the above rejection of claims 1 and 2.

Regarding claim 12, this claim is rejected by the reasoning applied in the above rejection of claim 4.

Regarding claim 13, this claim is rejected by the reasoning applied in the above rejection of claim 7.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Suzuki et al. (US 4,621,260), Howard et al. (US 4,845,482), Tsukada et al. (US 4,955,697), Moon (US 5,793,346), Itoh et al. (US 5,844,535), Moon et al. (US 5,945,970), Yoon (US 6,005,542), Mikami et al. (US 6,115,017), Yoneya et al. (US 6,300,926), Aoki (US 6,307,532), and Mori et al. (US 6,344,885) are cited to further evidence the state of the art pertaining to active-matrix liquid crystal displays.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (703) 305-8382. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



J.P.

October 16, 2002



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600